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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,461	06/28/2006	Takashi Kubota	Q93093	4442

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EXAMINER	
NGUYEN, KHANH TUAN	
ART UNIT	PAPER NUMBER
1796	

MAIL DATE	DELIVERY MODE
05/14/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,461	KUBOTA, TAKASHI	
	Examiner	Art Unit	
	KHANH T. NGUYEN	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Final

Response to Amendment

1. The amendment filed on 02/29/2008 is entered and acknowledged by the Examiner. Claims 1-3 are currently pending in the instant application.

2. The objection to the abstract for plural paragraphs is withdrawn in view of Applicant's amended abstract filed on 02/29/2008. The rejection of claim 1 under 35 U.S.C. 102(b) as being anticipated by Teichmann (U.S Pat. 4,711,814) or Kawasumi (U.S Pat. 4,450,188) or Ostolski (U.S Pat. 5,882,802) is withdrawn in view of Applicant's amendment. The rejection of claim 2 under 35 U.S.C. 103(a) as being unpatentable over Teichmann (U.S Pat. 4,711,814) in view of Toben (U.S Pat. 6,383,269) is withdrawn in view of Applicant's amendment. The rejection of claim 3 under 35 U.S.C. 102(b) as being anticipated by Khanna (U.S Pat. 6,838,022) is withdrawn in view of Applicant's amendment.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: Applicant has not provided any method steps of producing the electroconductive fine particle.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teichmann (U.S Pat. 4,711,814 hereinafter, "Teichmann") in view of either Kanzler et al. (U.S. Pat. 6,776,828 B2 hereinafter, "Kanzler") or Krulik et al. (U.S. Pat. 5,318,621 hereinafter, "Krulik").

With respect to claims 1 and 2, Teichmann teaches (Please see Fig. 1) an electroconductive particle that has a gold coating 11 formed over a solid nickel particle by electroless plating method or alternatively immersion plating technique (Col. 2, lines 25-35 and Col. 3, lines 12-25). Claim 1 is a product-by-process claim and is not limited

to the manipulations of the recited steps, only the structure limited by the steps. Therefore, the patentability of the product does not depend on its method of production and the claimed steps (i.e. formed by electroless gold plating or produced by a method wherein reducing agent cause oxidation reaction on the surface of a nickel undercoat but not on the surface of gold deposition) were not given patentable weight.

The difference between the instant application and Teichmann disclosure is that Teichmann is silent about a said electroconductive particle form with a reducing agent.

In an analogous art, Kanzler discloses an electroless gold plating method wherein gold are deposited on to metal substrate such as nickel (Col. 6, lines 33-46). Kanzler further discloses conversional gold plating composition may contain a reducing agent (Col. 6, lines 47-58). Kanzler also discloses the said gold plating composition comprises of a gold complexing agent such as thiosulfate salt (Col. 4, lines 6-13). The disclosure of thiosulfate salt is readable on the claimed sulfite salt as recited in claim 2.

Similarly, Krulik teaches an electroless silver or gold plating solution using thiosulfate and sulfite salts as a reducing agent to provide low toxicity and stability to the said plating solution (Col. 1, lines 5-15 and Col. 2, lines 30-42). Krulik further teaches the electroless gold plating may be applied to a nickel substrate (Col. 3, lines 6-14). The disclosure of nickel substrate is readable on the claimed nickel undercoating.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the electroconductive particle of Teichmann which has a gold coating formed by electroless gold plating on the surface of a nickel undercoat by incorporating a thiosulfate salt and/or sulfite salts into the gold plating

solution as suggested by Kanzler and Krulik in order to provide low toxicity and stability to the said plating solution and therefore the claimed electroconductive fine particle formulation is an obvious composition. Applicant have not provide the critically of the amount of nickel dissolved in a dissolution test of the electroconductive fine particle with nitric acid being 30 to 100 μg/g. Nonetheless, all the claimed elements were known in the prior art and the one skilled in the art could have combined the elements as claimed by the know methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention. The Examiner further notes that the USPTO is not equipped to perform laboratory testings and experimental benchworks to measure the properties of the resulting composition. The burden of proof is shifted to the applicant to establish that their product is patentably distinct, not the examiner to show the same process of making, see *In re* Brown, 173 *USPQ 685* and *In re* Fessmann, 180 USPQ 324.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Teichmann (U.S Pat. 4,711,814) in view of either Kanzler (U.S. Pat. 6,776,828 B2) or Krulik (U.S. Pat. 5,318,621) as applied to the claims above, and further in view of Khanna (U.S Pat. 6,838,022 B2 hereinafter, "Khanna").

Teichmann, Kanzler and Krulik are relied upon set forth above. With respect to claim 3, Teichmann teaches the electroconductive gold plated nickel particle may be embedded in an organic matrix to provide an electroconductive body (Col. 1, lines 48-51). The said organic matrix contains one or more resins and solvent (Col. 40-60).

The difference between the instant application and the prior art of record is that the references are silent about the electroconductive body being an anisotropic electroconductive material.

However, Khanna teaches an anisotropic conductive material may comprising of nickel particle (i.e. nickel undercoating) coated with gold suspended in a resin binder (Col. 1, lines 54-65 and Col 2, lines 7-12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to formulate an anisotropic electroconductive material by suspending a nickel coated particle of Teichmann into an organic resin binder to obtain an anisotropic conductive material as suggested by Khanna. Teichmann in view of Khanna teaches all the claimed elements and the one skilled in the art could have combined the elements as claimed to formulate the claimed anisotropic electroconductive material and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Response to Arguments

8. Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHANH T. NGUYEN whose telephone number is (571)272-8082. The examiner can normally be reached on Monday-Friday 8:00-5:00 EST PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Kopec/
Primary Examiner, Art Unit 1796

/KTN/
04/25/2008